

Magistrate Judge Roanne L. Mann
United States District Court Judge
U.S. Eastern District, New York
225 Cadman Plaza
East Brooklyn, NY 11201
VIA ECF Filing

FILED
in the Clerk's Office
U.S. District Court, EDNY
Aug 31, 2022, 9:39 PM
Brooklyn
Pro Se Office via Box.com

RE: Brainwave Science, Inc. v. Arshee, Inc. et al
Case Number: 1:21-cv-04402-BMC

Defendant Dr. Lawrence Farwell's Third Reply to Plaintiff's Reply [88] Confirming Defendant has complied as completely as possible with disclosure demands, Plaintiff's Demands were unreasonable and impossible to completely comply with unless modified, and confirming Defendant's attempt to resolve.

Dear Judge Mann,

I am writing to inform the Court that some of Plaintiff's Discovery Demands require me, Defendant Dr. Lawrence A. Farwell, to produce documents on behalf of entities that I do not control, including some entities that I have never heard of. Other demands are so broadly and vaguely worded as to make complying with them impossible.

On page 1, Plaintiff's Discovery Demands state the following definitions:

1. "Affiliated Entity" shall collectively refer to Securistics, Inc., Tracer Electrocom, Brain Fingerprinting Laboratories Inc, New Technology Investment Group, Angel Investment Group, The Washington Fund Trust, Workforce Innovations Network, LLC, Life Science and Technology, Inc., Life Science and Technology, LLC, American Scientific Innovations, LLC, Neuroscience Consulting Associates, LLC, Neuroscience Inventions, LLC, Brain Fingerprinting Foundation and The Farwell Trust.
2. "Affiliated Individual" shall collectively refer to Dr. Nash Thompson, Ben Bryant, Harold Higgs, Ernest Robson and Abul Kalam Azad.

Page 6, ¶ 3 states:

For the Relevant Time Period, with respect to any P300 System, Source Code, Executable Code or User Interfaces, provide Documents relating to communications between, you, any defendant or affiliated company and

- a) Any other co-defendant;
- b) Harold Higgs;
- c) Ernest Robson;
- d) CGX Systems;
- e) Brain Fingerprinting Foundation;
- f) University of Canterbury;

- g) Forensic Science Laboratory for the Govt. Of Delhi;
- h) Abul Kalam Azad and
- i) Tracer Electrocom.

For example, this requires me to provide communications between Securistics, Inc. (an “Affiliated Company”) and CGX Systems [entity “(d)” in the list].

I have never heard of Securistics, Inc., and even if I had, I could not comply with Plaintiff’s Discovery Demands that I provide communications between that company and CGX, Inc. or anyone else.

I also cannot provide documentation between “any defendant” except myself and anyone else.

I have provided documentation of all communications between myself, Dr. Lawrence A. Farwell and entities (a) – (i) on the other.

I have provided documentation of all communications between Brain Fingerprinting Laboratories, Inc. (which I control) and entities (a) – (i).

I cannot provide communications between any other “Affiliated Entities” and anyone else.

I cannot provide communications between any other Defendants (other than myself) and anyone else.

Plaintiff’s Disclosure Demands on page 3, ¶ 11 – 12, states the following definitions.

11. "P300 Measurement" means the measurement of the "P300" brainwave as an event-related potential (ERP) component elicited in the process of decision-making, or, generally, the measured brain response that is the direct result of a specific sensory, cognitive, or motor event.

12. "P300 System" means, for the purposes of this Disclosure Request, any combination of hardware and software which allows a user, by way of a User Interface, to create, capture, perform, interpret and/or display a P300 Measurement.

Plaintiff’s Disclosure Demands list as DOCUMENTS DEMANDED on page 5, ¶ 1:

Identify every P300 System, or component or version thereof, possessed, developed, tested, accessed, modified, demonstrated or distributed by you, any defendant or any affiliated entity or individual during the relevant time period.

As above, I cannot speak for any “Affiliated Entity” or “Affiliated Individual” except for myself and Brain Fingerprinting Laboratories, Inc.

Regarding “P300 Systems” and “P300 Measurement,” the definition provided by the Plaintiff is so broad that it makes compliance with this demand impossible, particularly in light of Plaintiff’s definition of “control,” as described below.

Definitions Applied Herein

Regarding the various software programs and other information and systems at issue in this lawsuit, the following definitions apply.

“Dr. Farwell’s Basic Public-Domain Invention of Brain Fingerprinting” comprises the basic method and apparatus disclosed and enabled in US Patents #5,363,858, #5,406,956, #5,467,777, and # 7,689,272 (the “Expired Farwell Brain Fingerprinting Patents,”) Dr. Farwell’s publications in the scientific literature (specified at <https://farwellbrainfingerprinting.com/research-publications/>), and the software that Dr. Farwell developed and applied at the FBI, the CIA, and the US Navy, in court proceedings wherein Dr. Farwell’s Brain Fingerprinting invention and his expert-witness testimony on it were ruled admissible, in operations that Dr. Farwell conducted in collaboration with law enforcement and counterterrorism agencies worldwide, and in other venues.

1. “Dr. Farwell’s Advanced Public-Domain Features of Brain Fingerprinting” comprises advanced features developed by Dr. Farwell, that were disclosed and enabled in the Expired Farwell Brain Fingerprinting Patents, Dr. Farwell’s publications in the scientific literature (specified at <https://farwellbrainfingerprinting.com/research-publications/>), and the software that Dr. Farwell developed and applied at the FBI, the CIA, the US Navy, in court proceedings wherein Dr. Farwell’s Brain Fingerprinting invention was ruled admissible, in counterterrorism operations worldwide, and in other venues, including but not limited to a system that
 - a) prompts testing personnel for appropriate stimuli;
 - b) displays stimuli to testing subjects in optimal order and at optimal intervals;
 - c) captures appropriate P300 brainwave responses;
 - d) disregards and/or eliminates extraneous responses (“noise”) which may produce false positive or false negative results;
 - e) detects and disregards any attempted countermeasures by suspects or others involved in conducting testing;
 - f) performs appropriate analysis of P300 measured responses utilizing statistical and machine learning algorithms and Artificial Intelligence;
 - g) generates unbiased reports for use by examiners, investigating agencies and legal authorities.
2. “Dr. Maison’s Implementation at BWS of Dr. Farwell’s Brain Fingerprinting Invention” comprises the software developed by Dr. Maison for Brainwave Science LLC / Inc. (“BWS”), which includes the following four components:
 - a. Dr. Farwell’s Basic Public-Domain Invention of Brain Fingerprinting;
 - b. Dr. Farwell’s Advanced Public-Domain Features of Brain Fingerprinting;
 - c. A “Blue User Interface”; i.e., a user interface that has blue as its background color throughout; and
 - d. Software to interface with the BWS headset (which is different from all of the headsets that Dr. Farwell used previous to the founding of BWS and all headsets Dr. Farwell has sold to clients at any time before, during, or after the founding of BWS).
3. “BWS’ Uploaded Blue Software” comprises the software that BWS uploaded or allowed to be uploaded to a public-domain source on the Internet, source at 6:15 PM on 9/10/2017 from

IP address 65.52.55.39 in Chicago, using the credentials of BWS employee Karuna Raja, who was in Southborough, MA at the time. The “BWS Uploaded Software” was identical in all substantive respects to Dr. Maison’s Implementation at BWS of Dr. Farwell’s Brain Fingerprinting Invention. The “Blue” in the name refers to the fact that all BWS software had a blue user interface.

(Note: In his Affidavit, ECS 20, Ika admitted that the BWS Software was uploaded to the internet, but falsely stated that it was uploaded to a secure cloud server. The BWS Software was never uploaded to a secure cloud server. It was maintained on a physical server in a rented office in Southborough, MA and accessed by numerous BWS employees in the US and India. Both Dr. Maison and Dr. Farwell know that from first-hand observation.)

4. “Dr. Maison’s Downloaded Blue Software” was the same as BWS’ Uploaded Blue Software, as downloaded by Dr. Maison from a public source on the internet.
5. “Dr. Maison’s Open-Source Developed Green Software” comprised the following changes to Dr. Maison’s Downloaded Blue Software and its source, BWS’ Uploaded Blue Software, as follows.
 - a. Dr. Maison changed the user interface color to green. This is different from all BWS software that had ever been accessed by Dr. Maison at any time through any means.
 - b. Dr. Maison implemented substantial improvements to the software, including advanced public-domain digital filters (as published by Dr. Farwell and others), which were lacking in all versions of BWS’ software.
 - c. Dr. Maison deleted the parts of the BWS software that interfaced with the BWS headset, and substituted software that interfaced with a custom headset designed by Dr. Farwell and manufactured in the US that was never used or possessed by BWS.

BWS obtained Dr. Maison’s Open-Source Developed Green Software through a settlement agreement with Dr. Maison.

6. “BWS’ Pre-Maison Blue Software” is the version of the BWS software that BWS had prior to receiving Dr. Maison’s Developed Green Software.
7. “BWS’ Fraudulently Modified Green Software” is the version of the BWS software that BWS developed after receiving Dr. Maison’s Open-Source Developed Green Software and prior to submitting the respective software packages to Codequiry. This modification was for the transparent purpose of making BWS’ software appear more similar to Dr. Maison’s. The modification included changing the color from blue – the color of all BWS software up to the time that BWS obtained Dr. Maison’s Open-Source Developed Green Software – to green – the color of Dr. Maison’s Open-Source Developed Green Software – and other undisclosed changes.
8. The “Program Plaintiff Originally Submitted to Codequiry as Its Code” is “BWS’ Fraudulently Modified Green Software,” which is, in demonstrable fact, the software that Plaintiff submitted to Codequiry as its code. This is referred to in the Preliminary Restraining Order (ECS 30) as “the software that plaintiff originally submitted to Codequiry as its code” and further referred to therein as BWS’ “confidential or proprietary information.”

Plaintiff’s Definitions

Plaintiff defines “P300 Measurement” as follows:

"P300 Measurement" means the measurement of the "P300" brainwave as an event-related potential (ERP) component elicited in the process of decision-making, or, generally, the measured brain response that is the direct result of a specific sensory, cognitive, or motor event.

Plaintiff defines “P300 System” as follows:

"P300 System" means, for the purposes of this Disclosure Request, any combination of hardware and software which allows a user, by way of a User Interface, to create, capture, perform, interpret and/or display a P300 Measurement.

Plaintiff defines “control” as follows:

Without limitation on the term "control" as used in the preceding paragraph, a document is deemed to be in your control if you have the right to secure the document or a copy thereof from another person.

Facts

I have invented two major, fundamentally different P300 Systems, and over a dozen minor ones. The one that is at issue in this case is the Farwell Brain Fingerprinting System, as disclosed in expired US Patents #5,363,858, #5,406,956, #5,467,777, and #7,689,272 wherein I am the inventor. The Farwell Brain Fingerprinting System applies P300 Measurement in the detection of concealed information in the brain for forensic-science purposes. Another major P300 system that I invented will be discussed in a subsequent section below.

Since 1985, when I first invented the Farwell Brain Fingerprinting System – the method and apparatus that constitutes the “P300 System” at issue in this case – dozens of my scientific colleagues (i.e., Dr. Farwell’s Colleagues) have developed open-source software programs to implement the P300 System I invented. In many cases, I have provided necessary assistance to Dr. Farwell’s Colleagues in developing said P300 Systems, and due to my collaboration and/or the existing licenses¹ I have the right to have the right to secure the document or a copy thereof from them. In other words, by Plaintiff’s definition, I have control of dozens of P300 Systems that can implement the science and technology at issue in this case. At any time, I could access and apply any number of open-source P300 Systems that are capable of implementing my Brain Fingerprinting Invention.

Virtually all of these P300 Systems contain everything of substance in the BWS software, and many of them contain substantial additional, more advanced features. My original software in 1985 and the improved versions in 1993 and 2007 contain numerous, substantial advanced features that are lacking in the BWS software. All of my implementations of my Farwell Brain

¹ Under the [GNU Project's](#) General Public License ([GPL](#)), other open-source systems, and other public-domain conventions and protocols, as well as public and private agreements, and in many cases also due to my collaboration with the developers.

Fingerprinting Invention meet the Brain Fingerprinting Scientific Standards that have been established by myself and Dr. Farwell's Colleagues in the peer-reviewed literature. The BWS software fails to meet the Brain Fingerprinting Scientific Standards.

By the Plaintiff's definitions, I have control of dozens of open-source P300 Systems that are capable of implementing everything that the BWS Software implements and more. A list of these would require years of research and a response that far exceeds the 100 MB size limit for uploading files in this case.

In addition to my Farwell Brain Fingerprinting Invention, I have invented another P300 System. My colleagues and I invented the first brain-computer interface (BCI) for communicating directly from the brain to a computer (and, optionally, a speech synthesizer), so that paralyzed people can operate a computer and "talk." My original 1988 scientific paper on this invention ([Farwell, L. A. and Donchin, E. \(1988\). Talking Off the Top of Your Head: A Mental Prosthesis Utilizing Event-Related Brain Potentials. Electroencephalography and Clinical Neurophysiology, 70: 510-513.](#)) has been cited in over 3,000 subsequent scientific papers. Hundreds if not thousands of scientists have developed open-source P300 Systems to implement my original invention and various modifications thereof. One open-source P300 System alone, the BCILAB software tool developed by UCSD specifically to implement my BCI invention and the various P300 systems that followed in its footsteps, is currently in use in over 100 laboratories around the world. I have the right to secure these P300 Systems or copies thereof from other persons². By the Plaintiff's definition, I have "control" of the same.

By the Plaintiff's definitions, I have control of hundreds of open-source P300 Systems that are capable making P300 Measurements related to my BCI invention accurately and scientifically. Documentation of these would require years of research and a response that far exceeds the 100 MB size limit for uploading files in this case.

In addition to over 3,000 developed open-source P300 Systems that implement my invention, there are many thousands of additional P300 Systems that conduct P300 Measurements for other purposes within the Plaintiff's definition of P300 Measurement. These have been reported in many thousands of scientific papers by Dr. Farwell's Colleagues and others. I have the right to secure these P300 Systems or a copy thereof from other persons under the [GNU Project's](#) General Public License ([GPL](#)), other open-source systems, and other public-domain conventions and protocols, as well as public and private agreements, and in many cases also due to my collaboration with the developers.

Thus, by Plaintiff's definitions of "P300 System" and "control," I "control" many thousands of P300 Systems, and their Disclosure Demands require me to disclose all of these.

By the Plaintiff's definitions, I have control of many thousands of open-source P300 Systems that are capable making P300 Measurements accurately and scientifically. A list of

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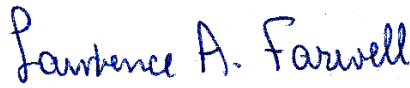
these would require years of research and a response that far exceeds the 100 MB size limit for uploading files in this case.

This is obviously an unreasonable demand and an impossible task.

For these reasons, I have limited my Disclosures to P300 Systems that are capable of implementing the Farwell Brain Fingerprinting Invention as disclosed and enabled in the Farwell Brain Fingerprinting Patents, which are now expired, and that are actually in my possession. This is the technology that the BWS software is designed to implement (although it does not meet the requisite Brain Fingerprinting Scientific Standards for doing so, lacks many necessary features for a system that could actually be used in any real-world or scientific application, and has never been successfully tested in the scientific laboratory, published in the scientific journals, or applied in real-world cases).

I am in communication with Plaintiffs in order to resolve the issues set forth herein. Absent an alternative direction from the Court, in the event that these issues cannot be resolved on or before September 30, 2022, I will request Court intervention.

Sincerely,



Dr. Lawrence A. Farwell
Defendant
28375 Sandy Beach Lane NE
PO Box 547
Kingston, WA 98346
email: brainwave@larryfarwell.com
phone (206) 905-1009
mobile (206) 250-5516